# ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES



## FACTORS AFFECTING MOBILE BANKING ADOPTION OF CUSTOMERS IN THE CASE OF COMMERCIAL BANK OF ETHIOPIA

BY

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JANUARY 2018

ADDIS ABABA, ETHIOPIA

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BY FERHIWOT FEKADU

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## Certification St. Mary's University School Of Graduate Studies

This is to certify that the thesis prepared by *Ferhiwot Fekadu* entitled: *Factors Affecting Mobile Banking Adoption of Customers in the Case of Commercial Bank of Ethiopia* and submitted in partial fulfilment of the Requirements or the degree of masters in Marketing management compiles with the Regulations of the university and meets the accepted standards with respect to originality and Quality.

## Approved by:

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Advisor

**External Examiner** 

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## **Declaration**

I, Ferhiwot Fekadu, hereby declare that the thesis entitled *Factors Affecting Mobile Banking Adoption of Customers in the Case of Commercial Bank of Ethiopia* is the outcome of my own effort and study and that all sources of materials used for the study have been duly acknowledged. This study has not been submitted for any degree in this University or any other University. It is offered for the partial fulfilment of the requirement for the degree of Masters in Marketing Management.

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## Endorsement

This thesis has been submitted to St. Mary's university, school of Graduate Studies for examination with my approval as a university advisor.

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St. Mary's university, Addis Ababa JANUARY 2018

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Ferhiwot Fekadu

## List of Abbreviations /Acronyms

- ATM=automated teller machine
- CBE=Commercial Bank of Ethiopia
- POS=Point of sale =Perceived ease of use
- PU= Perceived usefulness
- PC =Perceived credibility
- PSE =Perceived self-efficacy
- TRA=Theory of Reasoned Action
- TAM=Technology Acceptance Model
- USSD=Unstructured Supplementary Service Data
- WAP=Wireless Access Protocol

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#### Abstract

The purpose of this study is to investigate Factors Affecting Customers to Adopt Mobile Banking in Commercial Bank of Ethiopia. The study tries to build on widely used and latest models for technology adoption, the Unified Theory of Acceptance and Use of Technology Model to identify factors influencing customer's usage of mobile banking. This study is conducted based on the data gathered from customers of Commercial Bank of Ethiopia Survey was conducted using questionnaire. Out of 398 questionnaires that have been distributed, 320 were usable. The descriptive analysis of the data was done with the help of the SPSS. The research results found Performance expectancy, Effort expectancy, Social Influence and Facilitating Conditions as influencing factors for mobile banking adoption. The study recommended the bank to do actions based on the variables like creating awareness about performances and effort to use mobile banking, and also taking appropriate action which suitable to social influences and facility condition. Key Words: - Adoption of mobile banking.

#### **CHAPTER ONE: INTRODUCTION**

#### 1.1 Background of the study

Since the past decade, the information technology revolution has been addressed as the most significant development in the world. Some of the developments in the information technology were the invention of the Digital Photo camera, different type of computers and rapid advancement in the field of telecommunications. The upcoming new most advanced technologies have created and changed the demand of customers, competitiveness and global trends of commerce. As the result of innovations in technologies, the banking services have been developed and changed the commercial and business environments. Financial institutions including banks have used information Technology to achieve their objective like handling large volumes of business with the desired level of efficiency and with providing satisfaction to client (Ensor, et al., 2012; ITU, 2012).

Computers and communications technologies enable banks and financial institutions to expand their reaches and to offer technology based products and services to a wide variety of Customer. Technology has opened up new markets, new products, new services and efficient delivery channels for the banking industry. Mobile banking, internet banking and Mobile money solution services are just a few examples. Mobile banking refers to using mobile devices to provide financial information, communication and transactions to customers such as checking account balances, transferring funds and accessing other banking products and services from anywhere, at any time (Ensor, et al., 2012; ITU, 2012). Customers will also be able to obtain immediate and interactive banking services anytime and anywhere which, in turn, initiate great value for them. Hence to provide their services banks need to understand mobile banking adoption through examining factors that influence user's intention to use mobile banking this may guide strategic planning and inform decision making in banks when to developing mobile banking service to customers in different stages. In fact mobile banking is in an infant stage for Ethiopian bank sectors. To analyse those factors that affect customers adoption of mobile banking services different studies are conducted in different country and also in Ethiopia. From Ethiopia, two studies are conducted from Commercial Bank of Ethiopia perspective with dissimilar

type of methodology by laekemariam (2015) and worku (2015). And, these studies targeted to examining the factors that influence adoption of mobile banking among customers in Commercial Bank of Ethiopia. But in this study the gap was filled by including the target population from registered customers but not users but this target population was not addressed by the previous studies target population of both.

### 1.2 Background of the Organization

The history of the Commercial Bank of Ethiopia (CBE) dates back to the establishment of the State Bank of Ethiopia in 1942. CBE was legally established as a share company in 1963. In 1974, CBE merged with the privately owned Addis Ababa Bank. Since then it has been playing significances roles in the development of the country. With the vision" to become a world-class commercial bank by the year 2025". And also with the Mission" We are committed to best realize stakeholders' needs through enhanced financial intermediation globally and supporting national development priorities, by deploying highly motivated, skilled and disciplined employees as well as state-of-the-art technology. We strongly believe that winning the public confidence is the basis of our success." Currently, CBE has total number of branches 1221 as of June 30, 2017 stretched across the country. Business Hours of CBE are Monday through Saturday 8:00 am to 5:30 pm including lunch time, 24/7 ATM, Mobile Banking, and Internet Banking and Closed on Sundays and national holidays. The Commercial Bank of Ethiopia has instituted Products and services like domestic (Deposits, Credit Facilities and Local Transfers), international (Trade services, Forex Service, Money Transfer and Correspondent Banks), E-payment (Internet, mobile and Card banking) and Interest Free Banking.

#### 1.3 Statement of the Problem

One of the most innovative technological changes in the banking industry in Ethiopia was the introduction of mobile banking. The banking industry in Ethiopia generally has experienced some changes in recent decade, as innovation in technology the inexorable forces driving continue to create both opportunities for growth in terms of customer numbers and challenges in terms of the low rate of adoption of Mobile banking services.

In Commercial bank of Ethiopia context customers are two broad classifications with the mobile banking services perspective which include registered customers and non-registered

customers. Within registered customer domain the bank has two types of customer's active mobile banking users those are using the services but the others are inactive mobile services users those customers are only registered on the system but they are not users. Based on the information get from MIS as of September 30, 2017, the total number MB Registered and active user customer are 1,534,923 and 1,283,933 respectively. Numerous mobile banking adoption studies have been investigated by various scholars; most of them were conducted from other country perspective with relatively to Ethiopia. One of the study conducted with in Ethiopia was developed by laekemariam (2015). He developed a research that analyse about user adoption on mobile banking services in the Case of commercial bank of Ethiopia based on The Unified Theory of Acceptance and Use of Technology (UTAUT) Model, and attempted to explore the influencing factors which play a role in user's adoption of mobile banking. On his study quantitative approach was used and also the target population of the study was the customers who register mobile banking services in commercial bank of Ethiopia. And worku (2015) also conduct a research by the same case but with different model and methodology which is Technology Acceptance Model (TAM).Similar with the Leakemariam study quantitative approach was used but the target population of the study were the customers of commercial bank of Ethiopia which selected from the four districts in Addis Ababa. In Commercial Bank of Ethiopia the number of customer are the summations of registered and non-registered mobile banking services customers. But in his study the target population was include registered and nonregistered mobile banking services customers.

Hence this study was intended to identify the factors that affect customer to adopt mobile banking among customers which are not users of mobile banking services in Commercial Bank of Ethiopia; by using more specifically technology acceptances model Unified Theory of Acceptance and Use of Technology (UTAUT) Model in predicting mobile banking adoption variables. And also it was give benefits to the company by investigating which are the major factors that affect the adoption of mobile banking customers and also to provide recommendation to show the bank that help as a solution for those factors to increase the banks mobile banking users.

## 1.4 Research Questions

This study was guided by the following research questions;

- What are the main factors influencing customer to adopt mobile banking services of Commercial Bank of Ethiopia?
- What is the relationship between Performance expectancy and consumers' adoption of mobile banking services?
- What is the relationship between Effort expectancy and consumers' adoption of mobile banking services?
- What is the relationship between Social influences and consumers' adoption of mobile banking services?
- What is the relationship between facilitating condition and consumers' adoption of mobile banking services?
- 1.5 Objectives of the Study
- 1.5.1 General Objective
  - To identify the factors influencing the adoption of Mobile banking services in Commercial Bank of Ethiopia.
- 1.5.2 Specific Objectives
  - To identify the relationship between Performance expectancy and consumers' adoption of mobile banking services.
  - To identify the relationship between Effort expectancy and consumers' adoption of mobile banking services.
  - To identify the relationship between Social influences and consumers' adoption of mobile banking services.
  - To identify the relationship between facilitating condition and consumers' adoption of mobile banking services.

## 1.6 Research Hypothesis

H1:-Performance expectancy doesn't affect Users' behavioural intentions to use Mobile banking services.

H2:-Effect expectancy doesn't affect Users' behavioural intentions to use Mobile banking services.

H3:-Social influence doesn't affect Users' behavioural intentions to use Mobile banking services.

H4:-Facilitating condition doesn't affect Users' behavioural intentions to use Mobile banking services.

#### 1.7 Definition of Terms

Attitudes:-Sum of beliefs about a particular behaviour weighted by evaluations of these beliefs. (Fishbein and Ajzen, 1975)

**Behavioural intention**: -Function of both attitudes toward a behaviour and subjective norms toward that behaviour which has been found to predict actual behaviour. (Fishbein and Ajzen, 1975)

**Performance Expectancy**: -Performance expectancy is defined as the degree to which an individual believes that using the system will help him or her to attain gains in job performance. (Venkatesh et al, 2003)

**Effort Expectancy**: -Effort expectancy is defined as the degree of ease associated with the use of the system.(Venkatesh et al, 2003)

**Social influence**:-Social influence is defined as the degree to which an individual perceives that important others believe he or she should use the new system.(Venkatesh et al, 2003)

**Facilitating conditions**: - Facilitating conditions are defined as the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system. (Venkatesh et al, 2003).

## 1.8 Significances of the Study

The study has the following significances in detail: -as a general to identify the factors influence the adoption of mobile banking services to customers of Commercial Bank of Ethiopia which helps CBE to take action in appropriate time and condition. In addition it helps CBE by showing factors that affect their customer to adopt mobile banking services to remain competitive in the sector by taking advantage in their marketing strategy. The last but not the least one is the study also helps the CBE to satisfy its customer by improving its service by taking the points that will mention in this study.

- 1.9 Scope and Limitation of the study
- 1.9.1 Scope of the Study

The scope of this study focuses on the following dimensions i.e. conceptual, Geographical and time scope. From the conceptual scope viewpoint, in bank sector there are a lot of concepts that rise by academic research like challenges and opportunities of E-Banking services , services quality with related to customer satisfaction , E-Banking services with related to customer satisfaction and others. One of the issues that can include in conceptual scope is factors that affect customer to adopt mobile banking services which is the conceptual scope for this study.

The reason to select this concept is that like other system CBE invest to implement mobile banking services but the customers are not using the services. From the 1,534,923 number of mobile banking registered customers 1,283,933 are only active users. But the rest of the customers are not using the service. So to identify why customers not use mobile banking and what are the reasons those factors that affect the adoption of mobile banking services are the ground to rise as conceptual scope to this study. The second dimension is geographical scope from the total fifteen districts of commercial Bank of Ethiopia only Addis Ababa area districts that include four Districts namely North, South, East, and West districts are included in geographical scope of this study because of geographical proximity to researcher. Because of the research should complete in specific time this was the time scope to this study.

#### 1.9.2 Limitation of the study

In this study the target population was only customer those aren.t users of mobile banking in four districts that include namely North, South, East, and West districts. To approaches those customers the researcher use purposive sampling technique to select the four districts from the whole fifteen districts. Conveniences sampling technique was used in this study selecting branches to reach customers from the selected four districts that was responded the research question. These selecting of four districts from the whole districts may limit the representative of the research work.

## 1.10 Organization of the Paper

The study is divided into five chapters. The first chapter includes background of the study and organization, statement of the research problem, research questions, research objectives, research hypothesis and definition of terms, significances of the study, delimitation/scope of the study and organization of the paper. The second chapter deals with review of related literature by include theoretical, empirical review and conceptual frame of the study. The third chapter presents research design and methodology through research design/type and sampling design. Results analyse in descriptive and discussion of the result that found from the study presented in the chapter fourth. The fifth chapters contain conclusion, limitations of the study and recommendation of the study respectively.

#### **CHAPTER TWO: LITERATURE REVIEW**

#### 2.1 Theoretical Literature

#### 2.1.1 Mobile Banking technology

The introduction of mobile technology and its devices have indeed brought about efficiency in the manner in which commercial and business activities are been carried out (Tiwari and Buse, 2007; UNCTAD, 2007). The use of mobile technologies for commercial purpose has generated the concept of mobile commerce.

Mobile Commerce (m-commerce) is defined as a business transaction conducted through mobile communication networks or the Internet (Siau and Shen, 2003). M-commerce can offer value to consumers through convenience and flexibility by enabling time and place independence (Kim et al, 2009). Mobile banking is an application of m-commerce which enables customers to access bank accounts through mobile devices to conduct and complete bank-related transactions such as balancing cheques, checking account statuses, transferring money and selling stocks (Kim et al, 2009; Tiwari and Buse, 2007). Luo et al (2010), defined mobile banking as an innovative method for accessing banking services via a channel whereby the customer interacts with a bank using a mobile device (e.g. mobile phone or personal digital assistant (PDA)).

On the other hand, despite the great investments made in the field of mobile banking, some users not use this technology, though they have access to it So, studying behavioural factors influencing customer adoption of mobile banking will make the banking system to identify factors related to adoption of the technology and to strengthen relevant factors in order to encourage customers to use this service and thus develop the electronic banking. This reveals the need to perform investigations to identify factors determining adoption of the mobile banking system and customers attitude toward it .Several theories are offered in order to identify factors that cause people accept new technologies and information systems and use them, such as Theory of Reasoned Action (Fishbein and Ajzen, 1975) and Technology Adoption Model (Davis et al, 1989) and others. Adoption is the acceptance and continued use of a product, service or idea. Consumers go through a process of

knowledge, persuasion, decision, implementation and confirmation before they are ready to adopt a product or services (Rogers and Shoemaker., 1971).

#### 2.1.2 Mobile Banking services via a channel

Currently, mobile banking is implemented through three different technology solutions: messaging-based applications, browser-based applications and client-based applications (Kim et al., 2009; Tiwari & Buse, 2007, p. 84).

#### 2.1.2.1 Short Messaging Services (SMS) based applications

On the messaging-based applications, the communication between the bank and the customer is carried out via text messages. By using a registered mobile number, the customer sends a predefined command to the bank, and then uses text messages to conduct transactions with the bank. An example of messaging-based applications is the Unstructured Supplementary Service Data (USSD), which has compatibility with most mobile phones. The short messaging service (SMS) works in two ways, and it can be either a pull mode or a push mode. In the push mode, the mobile customer send a text message to the bank which contains a service command with a predefined request code to the bank's specific number. The bank also reply with SMS containing the specific information requested from the bank while the pull mode is when the banks sends a text message to the subscriber (customer) to inform the customer about certain transaction that have just taken place over the account. The message could be inform of an MMS (multimedia message service) or SMS (short message service) they both work similarly even though the use of SMS is more popular (Tiwari&Buse 2007). This application has its own advantage like Easy to use ,Common messaging tool among consumers, Work across all wireless operators, Affordable for consumers, Require no software installation, Allows banks and financial institutions to provide real time information to customers and employees, Stored messages can be accessed without a network connection .While short message service does have the following disadvantages like test only an limited to 140 - 160 character per message, does not offer secure environment.

#### 2.1.2.2 Browser-based application

The browser-based application is essentially a Wireless Access Protocol (WAP)-based internet access (Kim et al., 2009). This requires a compatible mobile phone which is WAP-enabled. The mobile phone is used to access banking portals through the Internet. Browser-based application provides customer needs to be connected to the internet to use this service. The interface is generated from the server which is transported to mobile device, and this allows the content to be displayed through the browser. This method is extremely fast depending on the server that the customer is connected to but one its disadvantages is that, it requires the subscriber (customer) to stay online all through the transaction process and could lead to higher cost for the customers (Tiwari & Buse 2007).

#### 2.1.2.3 Client-based application

On client-based applications, special software is installed in the mobile phone. This method requires the customers to use software installation, and this will serve as a user interface that can allow customers to use the mobile device while offline to access some basic transactions before going online. This client based application is particularly useful because it allows customers to stay offline and while preparing transaction such as entry of account details and afterwards the transmission is made by sending out the data, this banking process conducted offline reduces online connection time and cost (Tiwari & Buse 2007).

#### 2.1.3 Benefits and Functionalities of Mobile Banking

According to Vinayaga moorthy and Sankar (2012), Mobile banking can perform various functions like checking of account history, mini statement, and access to card statements, checking of balance etc. with the help of mobile phones. Banks are continuously trying to increase their base by updating technology and by trying to reach every customer. Even the rural customers can get easy access to Mobile banking whenever required.

Mobile banking brings significant benefits to customers and banks in these regards (Renju, C., 2014) some of the lists are following:

- Time saving: Instead of allocating time to walk into a bank, you can check account balances, transfer money and organize your accounts when you're on the go.
- Convenient: The ability to access bank accounts, make payments, and even track investments regardless of where you are can be a big advantage Do your banking at a time and place that suits you, instead of waiting in queues.
- Easy access to your finances: with the introduction of mobile banking, you are able to access your financial information even beyond the working hours.
- Increased efficiency: mobile banking functions are functional, efficient and competitive. It also helps in decongesting the banking halls and reduces the amount of paperwork for both the banker and the customer.
- Fraud reduction: one very real advantage to implementing mobile banking. "Customers are being deputized in real time to watch their accounts.
- Mobile banking is available round the clock 24/7/365, it is easy and convenient and an ideal choice for accessing financial services for most mobile phone owners in the rural areas.

#### 2.1.4 Technology Adoption Theories and Models

Many technology acceptance theories and models have been developed or used to study information technology acceptance. These models include: The Theory of Reasoned Action (Fishbein et al., 1975), the Technology Acceptance Model (Davis, 1989) and extended TAM (Venkatesh and Davis, 2000), the Motivational Model (Davis, et al, 1992), the Theory of Planned Behavior (Ajzen, 1991), the model combining TAM and the Theory of Planned Behaviour (Taylor and Todd, 1995), the Model of PC Utilization (Thompson, et al, 1991), the Innovation Diffusion Theory (Rogers, 1995) and the Social Cognitive Theory (Bandura, 1986) ,the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003).

In the following paragraphs some technology acceptance models are briefly discussed which include: Diffusion of Innovation theory, Technology Acceptance Model (TAM), the Theory of Reasoned Action (TRA), The Social Cognitive Theory, The Motivation Model, The Model of PC Utilization, Extended TAM2 model, Theory of planned Behaviour (TPB) and Unified Theory of Acceptance and Use of Technology.

#### 2.1.4.1 Diffusion of Innovation Theory

According to (Rogers, 1995), he defines diffusion as the process of communicating an innovation through certain channels over a certain period of time among the group of a social system". He also defines the communication as a process where people create and share information among one another to reach a mutual understanding. Rogers (1995) argued that, there are four stages in innovation diffusion process: invention, diffusion (or communication) through the social system, time and consequences. The easiness of use and newness (in terms of persuasion, knowledge and the decision to adopt) of an innovation can determine the way an individual will respond to an innovation. Some factors have been highlighted to be a determinant of adoption of an innovation and they are: complexity, relative advantage and compatibility. This is believed that, an innovation with relative advantage, with less complexity and compatible will be adopted easily and faster by an individual.

#### 2.1.4.2 Theory of Reasoned Actions

The Theory of Reasoned Action is a widely used model from social psychology studies; it is concerned with the determinants of consciously intended behaviours. It was developed by Fishbein &Ajzen, (1975).

The Theory of Reasoned Action is also a continuation or expansion of past theories. It is suggested by the Theory of Reasoned Action that the individual's Behavioural Intention (BI) to perform an action is determined by the individual's Attitude toward performing the Behaviour (ATB) and Subjective Norm (SN). It can be seen that is has three important constructs and thus behavioural intentions, attitude and subjective norm. Attitude according to this theory is about beliefs while subjective norms are about expectations. Subjective Norm (SN) is defined by Fishbein and Ajzen, (1975) as an individual perception that people who are important to them should or should not perform the behaviour in question.

TRA is still widely known as a general model that does not directly state specifically the beliefs that are operative for certain behaviour, it suggest that a person's behaviour is determined by the intention to do a certain action. The developers of this theory thus, Fishbein and Ajzen (1975) recommended using modal salient beliefs for the population obtained by taking the beliefs most frequently drawn out from a representative sample of

the population. The Theory of Reasoned Action was also successfully applied in a reasonable number of times to predict the performance of behaviour and intentions.

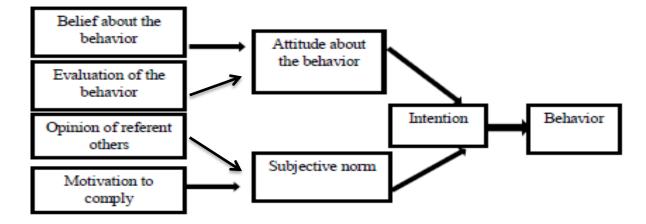


Figure 2.1: Theory of Reasoned Action Source: Fishben and Aizen (1975)

#### 2.1.4.3 Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) was proposed by Icek Ajzen in 1991 and was developed from the Theory of Reasoned Action (TRA) which was proposed by Martin Fishbein and Ajzen in 1975. TPB adds the concept of Perceived Behavioural Control (PBC) to the constructs attitudes and subjective norms which make the TRA. With careful consideration, it can be seen that the two theories of TRA and TPB are similar to each other in that, in both theories Behaviour intentions is an important element in predicting the actual behaviour while on the other hand the main difference between these two theories is that the TPB added more constructs to the model and thus Perceived Behavioural Control (PBC) as the determinant of Behavioural Intention and control beliefs that affect the perceived behavioural control. Perceived behavioural control refers to "people's perception of the ease or difficulty of performing the behaviour of interest".

The reason for including the PBC is because the perceived behaviour control is an external variable that has both direct and indirect effect on actual behaviour intentions. The Theory of Planned Behaviour was then to be successfully applied to many studies in predicting the performance of behaviour and intentions.

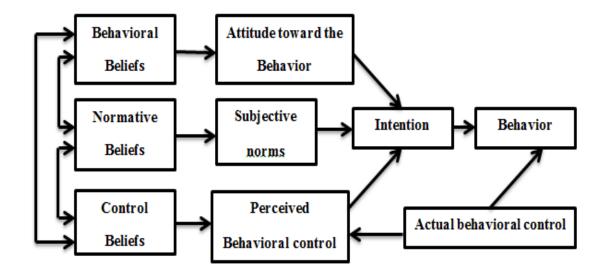


Figure 2.2: Theory of Planned Behavior Source: (Ajzen, 1991)

## 2.1.4.4 The Social Cognitive Theory

Focus of the Social Cognitive Theory (SCT) is on the concept of self-efficacy which is defined as "the judgment of one's ability to use a technology to accomplish a particular job or task" (Compeau and Higgins, 1995).According to SCT, behaviour of the user is influenced by expectations of outcome related to personal as well as performance-related gains. Self-efficacy, in turn, influences the expectation of outcome of both types. While esteem of the person and his sense of achievement relate to personal outcome expectations, outcome expectations related to performance on the job lead to performance related expectations. According to SCT, there are two opposing factors that influence behaviour of the users. Positive contribution is made by the factor "affect" which is the extent to which an individual likes his job. On the other hand, negative contribution to desired behaviour is made by the factor "anxiety" which is the anxious reaction of the person while performing a job such as trying to use a computer with which the person is not very familiar. This theory has been widely used in adoption studies.

#### 2.1.4.5 Technology Acceptance Model

Technology acceptance model is an extension of the theory of reasoned action (TRA) model which was introduced by Davis in 1985. This theory is mainly based on the idea of technology adoption, TAM replaced TRA with two technological accepted features, perceived usefulness (PU) and perceived ease of use (PEOU) which have been proven to be of significance to the adoption of technologies such as mobile banking, many researchers have used this models to analyse key issue pertaining to the acceptance and usage of mobile banking and many have yield positive results which showed a correlation between the incorporated variables such as PEOU and PU. According to Davies(1989) Perceived usefulness is an extent to which a person believes the use of a certain technology will benefit and improve his/her job performance while perceived ease of use refers to the level in which a person understands that the use of a new technology will be less complex for him/her.

The TAM model in their study which investigated consumer acceptance of mobile banking services, by explaining relationships that exist between variables such as PEOU, PU, PC, and the results indicated that perceived usefulness, perceived credibility, perceived self-efficacy and PEOU have an influence in the adoption of mobile banking but the results revealed that PU had more significance than the rest of the variables in influencing consumers to adopt mobile banking services.

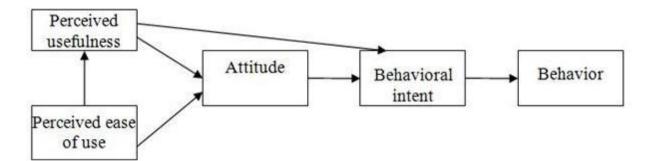


Figure 2.3: Technology Acceptance Model Source: Davis, (1989)

Other models that were used after TAM were such as the ETAM which were proven to be able to predict the intention to use new technologies. This model like many others that followed years later, was criticized many times due to its limitation in explanations, failure to acknowledge social processes of Information System development and implementation and its inability to predict outcomes as a results it was redefined several times. According to Benbasat and Barki (2007) they criticized the model saying it did not serve the original purpose but despite the opposition many researcher still support the use of this model as an excellent model that can explain acceptance of information system.

#### 2.1.4.6The Model of PC Utilization

The model is based on the Theory of Human Behaviour by Triand is (1977) which differs in some Ways from the Theory of Reasoned Action, because it makes distinction between cognitive and affective components of attitudes. According to this theory "Behaviour is determined by what people would like to do (attitudes), what they think they should do (social norms), what they have usually done (habits), and by the expected consequences of their behaviour". This theory primarily deals with extent of utilization of a PC by a worker where the use is not mandated by the organization but is contingent on the option of the user. In such a setting, the theory posits that the use of computer by the worker is likely to be influenced by several factors such as his feelings (affect) toward using PCs, prevalent Social norms regarding use of PC at the work place, general habits related to use of the computer, consequences expected by the user by using the PC and extent of conditions that are present at the workplace for facilitating use of PC (Davis et al., 1992).

#### 2.1.4.7 The Motivation Model

Davis applied the motivational theory to study information technology adoption. The main premise of the Motivation Model is that there are extrinsic and intrinsic motivations that shape the behaviour of the user. Extrinsic motivation is defined as the perception that users want to perform an activity "because it is perceived to be instrumental in achieving valued outcomes that are distinct from the activity itself, such as improved job performance, pay, or promotions" (Davis et al., 1992, p. 1112). The extrinsic motivation is perceived usefulness, perceived ease of use, and subjective norm. On the other hand, if performing an activity leads to a feeling of pleasure and results in satisfaction for the individual, such behaviour can be classified as intrinsic motivation. (Vallerand, 1997). Users want to perform an activity "for no apparent reinforcement other than the process of performing the activity per se" (Davis et al., 1992, p. 1112). An intrinsic motivation is the extent of enjoyment that a person derives from playing with a computer (Davis et al., 1992; Venkatesh, 2000).

#### 2.1.4.8 Extended TAM2 model

Venkatesh & Davis modified TAM to include additional key determinants of TAM's perceived usefulness and usage intention constructs in their extended TAM model. The additional constructs included social influence processes (subjective norm, voluntariness and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability and perceived ease of use).

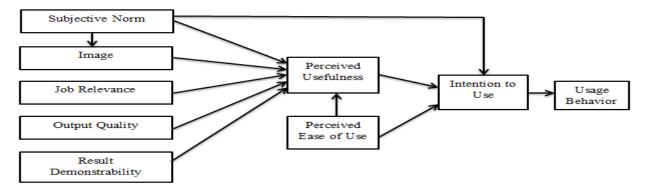


Figure 2.4: Extended Technical Adoption Model Source :(Venkatesh& Davis, 2000)

#### 2.1.4.9 Unified Theory of Acceptance and Use of Technology

Unified theory of acceptance and use of technology by Venkatesh et al (2003), This is a more complex theory which explains individual intentions to use technologies and how differences between individuals can influence the use of new technologies, it was introduced after a critical review of eight theories and models of Information system which are, (TRA, TAM, MM, TPB, TAM2, DOI, SCT and model of personal computer use). It is meant to serve as a comprehensive model that can be applied across a range of applications. It has four key constructs namely "performance expectancy, effort expectancy, social influence and facilitating conditions". For developing the unified model, the authors have compiled and tested all the constructs that were used in previous models and theorized that out of the seven constructs used earlier, four constructs shown above are most significant as determinants of intention to use information technology. They have hypothesized that remaining three constructs, namely, attitude toward using technology,

self-efficacy, and anxiety are theorized not to be the direct determinants of intention as they are fully mediated by ease of use which has been considered in the unified model as performance expectancy. Therefore, these three constructs have been removed from the UTAUT model. The unified theory is proposed to be superior as it is able to explain 70% of the variance while the earlier theories were explaining only 30-40% variance in the adoption behaviour (Venkatesh et al. 2003). However, it is criticized on the grounds of being overly complex, not being parsimonious in its approach and its inability to explain individual behaviour (Casey & Wilson-Evered 2012; Van Raaij & Schapers 2008).

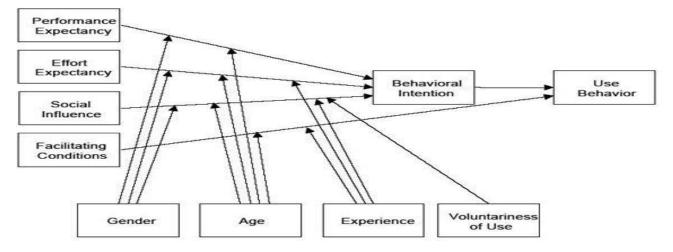


Figure 2.5: Unified theory of acceptance and use of technology Source :-( Venkateshet. al. 2003)

#### **2.3Empirical Review**

Numerous mobile banking adoption studies have been investigated by various scholars; most of them were conducted from other country perspective with relatively to Ethiopia. From Ethiopia angle like laekemariam (2015), worku (2015)Studies have been conducted using various Methodologies to better understand their customer's attitudes toward mobile banking services. One of the study conducted with in Ethiopia was developed by laekemariam (2015).He developed a research that analyse about user adoption on mobile banking services in the case of commercial bank of Ethiopia based on The Unified Theory of Acceptance and Use of Technology (UTAUT) Model, and attempted to explore the influencing factors which play a role in user's adoption of mobile banking. On his study quantitative approach was used and also the target population of the study was the customers who register mobile banking services in commercial bank of Ethiopia. And the other research worku (2015) also conduct a research by the same case but with different

model and methodology which is Technology Acceptance Model (TAM).Similar with the preceding study quantitative approach was used but the target population of the study were the customers of commercial bank of Ethiopia which selected from the four districts in Addis Ababa.

Therefore this study was intended to identify what are the factors that influence adoption of mobile banking among customers which are not users of mobile banking services in Commercial Bank of Ethiopia; by using more specifically technology acceptances model Unified Theory of Acceptance and Use of Technology (UTAUT) Model in predicting mobile banking adoption variables. In Commercial Bank of Ethiopia the number of customer are the summations of registered and non-registered mobile banking services customers. Within the registered customer domain active and inactive customers are included. To get reliable information which factors affect CBE's customers to adopt mobile banking services. By using the target population the study will answer the research questions of the study.

#### 2.4 Proposed Model

The proposed Model was indicate the crucial process, which is useful to show the direction of the study .The goal of the present study is not to replicate the UTAUT study as in Venkatesh et. al. Rather, this paper aims to ascertain what factors considerably influence people to adopt mobile banking. Therefore, by modifying the UTAUT Model in slight way the following proposed model is adopted.

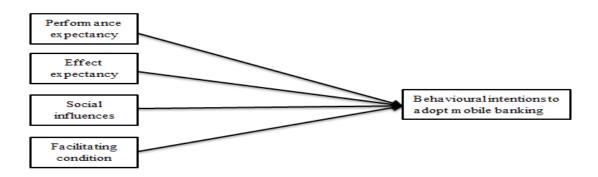


Figure 2.6: Proposed Model

#### **CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY**

#### 3.1 Research Design

In order to achieve the research objective by answering the research questions the study used Explanatory research design which is to investigate the factors that affect customers to adopt mobile banking services in commercial bank of Ethiopia. Explanatory research attempts to clarify why and how there is a relationship between two aspects of a situation or phenomenon (Ranjit Kumar, 2011).

#### 3.2 Population and Sampling Technique

The interests of this study from whom the researcher needs to obtain information are the customers those are not users of mobile banking services. To get the answers to research question the study was use two level sampling designs. For this study, the target population are those customers who are not users of mobile banking was taken by using one of Non-Probability Sampling that is Judgemental or purposive sampling techniques because of the conceptual scope of study. To approach those customers the researcher selected four districts found in Addis Ababa area which are North, South, East, West Districts are because of proximity to researcher as explained in the geographical scope of the study. In each District the researcher took five branches as a centre to get the respondents. To reach the respondent from each district study was use the second sampling technique which is Convenience. To distribute the number of customers to selected branches by conveniences sampling techniques the study was trigger sample sizes of the study from CBE customers of those are not using of mobile banking services in four Addis Ababa Area Districts (North, South, East, and West Districts). To get representative sample size from the total population the study use calculation of sample size formula for finite number of population. A 95% confidences level was assumed for this formula to determine the sample size, at e=0.05. The sample size is determined by the following formula.

 $n=N/(1+N(e^2))$ 

Where:

n is the required sample size,

N is the population

e is sampling error

	Total No. MB Registered as at September 30,2017	Active No. of Mobile Banking as at September 30,2017	Inactive No. of Mobile Banking as at September 30,2017
EAST ADDIS DISTRICT	138,133.00	115,645.00	22,488.00
NORTH ADDIS DISTRICT	158,091.00	140,588.00	17,503.00
SOUTH ADDIS DISTRICT	137,825.00	117,125.00	20,700.00
WEST ADDIS DISTRICT	104,913.00	91,760.00	13,153.00
TOTAL	538,962.00	465,118.00	73,844.00

Table 3.1: No of MB Registered and active as at September 30, 2017

n=73,844/ (1+73844(.05<sup>2</sup>))

n=397.84, so n~398

Based on the calculation result the sample size is 398 from the population of 73,844.

### 3.3 Types of Data and Tool

The study was use primary data using close ended questionnaire. A total of questionnaires was designed and distributed to Customer in commercial Bank of Ethiopia based on the sampling frame. And from secondary sources the study review documents such as manuscripts within the journals, bank manuals and reports, and other accessible information from the internet and other information which related to the problem and theories and models that are important to the study. As method of Data Collection on this study face to face (personal) collection and distribution of questioner was execute. Questionnaires are Data collection Instrument to collect data that rise in the research

question by including likert scale, where 1=strongly Disagree, 2=Disagree, 3 = Neutral 4 = Agree, and 5=strongly Agree from the respondents in this Study.

## 3.4 Procedures of Data Collection

To collect data which can answers research questions of the study was use two level sampling designs from non-probability sampling techniques design. Purposive sampling technique was use to choose four districts found around Addis Ababa (North, South, East, and West Districts) from the whole fifteen districts. And then Convenience sampling method was used in selecting the sample subjects. To draw branches where questionnaires distributed convenience sampling were used. The data was collect during working hours (6 days per week) over four weeks. The respondents were randomly select in the banking halls by asking whether they use mobile banking or not and if the respondents answered that they didn't use mobile banking, they were invited to complete the questionnaires. A total of 398 questionnaires were distributed to get the sample size i.e.398.

## 3.5 Methods of Data Analysis

The study employs descriptive statistics to analyse the collected data. This descriptive statistics involved by computing different statistics include mean, frequency, present and correlation.

## 3.5.1 Descriptive statistics analysis

The study was use descriptive statistics in analysing data related to objective of the study through frequency and data presented in form of mean, percentages and correlation which reflected relative weight to describe types of variables that affect mobile banking services vender by commercial bank of Ethiopia.

## **CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION**

#### 4.1 Response Rate

The sample size of this study was 398 respondents. Those out of 398 questionnaires filled and returned were 331. After excluding 11 invalid questionnaires a total of 320 questionnaires were accepted for response rate of 80.4%. And also as the result shows the reliability test gives one hundred present.

### 4.2 Result/ Findings of the study

### 4.2.1 Demographic Characteristics of Respondents

The samples of this study have been classified according to four demographic background information collected during the questionnaire survey. The purpose of the demographic analysis in this research is to describe the characteristics of the sample such as the number of respondents' proportion of males and females in the sample, range of age, and educational qualification of the Respondent and Occupation status. The demographic composition of the respondents was summarized in below.

		Frequency	Percent	Cumulative Percent
Gender of the respondents	Male	230	71.9	71.9
	Female	90	28.1	100.0
	Total	320	100.0	
		Frequency	Percent	Cumulative
				Percent
Age of the respondents	18 - 30 Years	122	38.1	38.1
	31 - 40 Years	157	49.1	87.2
	41 - 50 Years	41	12.8	100.0
	51 and above	-	_	100.0
	Total	320	100.0	

Table 4.1: Frequency distribution for demographic variables

		Frequency	Percent	Cumulative Percent
Educational Qualification	Certificates	26	8.1	8.1
of the respondents	Diploma	173	54.1	62.2
	Degree	77	24.0	86.3
	Master's Degree	44	13.8	100.00
	Total	330	100.0	
		Frequency	Percent	Cumulative
				Percent
Occupation of the	Employed	183	57.2	57.2
respondents	Unemployed	29	9.1	66.3
	Self employed	108	33.8	100.0
	Total	320	100.0	

#### Source: Field survey 2017

As shown in the above table from Gender of the respondents, 71.9% of the respondents are male and 28.1% of the respondents are females. To conclude that majority of the respondents are male. With regard to age 38.1% of the respondents belong to the age group 18-30 years, 49.1% of the respondents are between the ages of 31-40 years, 12.8% of the respondents are between the ages of 41-50 years. Showing that, most of the respondents are between the ages of 31-40 years. From Educational Qualification of the respondents angle, 8.1% of the respondents have an education level of Certificates, 54.1% of the respondents have an education level of Diploma, 24% of the respondents have an education level of Master's degree. From this, majority has an educational level of Diploma. The final Demographic variable in this study was Occupation of the respondents, 57.2% of the respondents are employed, 9.1% of the respondents are unemployed, and 33.8% of the respondents are self-employed.

#### 4.2.2 Descriptive Statistics of variables

In this part of descriptive statistics mean and standard deviation were presented to each variable to illustrate the level of agreement of the respondents. The responses of the respondents for the variables indicated below were measured on five point Likert scale with: 1= strongly disagree, 2= disagree, 3 = neutral, 4= agree and 5= strongly agree. To analyze the collected data in line with the overall objective of the research undertaking,

statistical procedures were carried out using SPSS version 20 software to get statistical variables including mean and Std. Deviation.

## 4.2.2.1 Mobile phone experience

As seen in the below table 4.2: Mobile phone experience of respondents towards the experiences to use their mobile phone average means is 4.12. Hence, the knowledge on using mobile phone of the respondents has scored a mean of 4.12with standard deviation of 0.60.Based on the result, the respondents are almost agree on their ability to use their mobile phone or they having knowledge on who to use mobile phone.

	Variables of Mobile phone experience	Mean	Std. Deviation
1	I have knowledge on using mobile phone.		
		4.12	.600
	Average mean	4.12	

Table 4.2: Descriptive statistics of Mobile phone experience

Source: Field survey 2017

## 4.2.2.2 Performance expectancy of respondents towards behavioral intentions

As seen in the below table 4.3: Performance expectancy of respondents towards behavioural intentions the cumulative average mean is 1.942. Accordingly, the mobile banking services usefulness in respondent life has scored a mean of 1.76 with standard deviation of 0.644, the using of mobile banking services enables respondent to accomplish banking task more quickly has scored a mean of 2.17 with standard deviation of 0.726, the Using of mobile banking services increase respondents productivity in handling banking tasks has scored a mean of 1.91 with standard deviation of 0.666, the Using of mobile banking services makes respondent's bank activities easier has scored a mean of 1.81 with standard deviation of 0.491, the using of mobile banking services increase respondent's efficiency in conducting banking tasks has scored a mean of 2.06 with standard deviation of 0.636. Based on the result, the respondents are almost disagree on performances of mobile banking services. This means respondent are not agree about the performances of mobile banking services.

of the mobile banking to fulfil some interest of customers i.e. usefulness in their life, accomplish banking task more quickly and activities easier.

	Variables of Performance expectancy	Mean	Std.
			Deviation
1	I found mobile banking services useful in my life.	1.76	.644
2	Using mobile banking services enables me to accomplish banking task more quickly.	2.17	.726
3	Using mobile banking services increase my productivity in handling my banking tasks.	1.91	.666
4	Using mobile banking services makes my bank activities easier.	1.81	.491
5	Using mobile banking services increase my efficiency in conducting my banking tasks.	2.06	.636
	Average mean	1.942	

 Table 4.3: Descriptive statistics of Performance expectancy

Source: Field survey 2017

## 4.2.2.3 Effort expectancy of respondents towards behavioral intentions

As seen in the below table 4.4: Effort expectancy of respondents towards behavioral intentions the cumulative average mean is 2.273.Accordingly, learning how to use CBE's mobile banking is easy for respondent has scored a mean of 2.28with standard deviation of 0.449, the respondents found CBE's mobile banking easy to use has scored a mean of 2.22 with standard deviation of 0.418, it is easy for respondents to become skillful at using mobile banking has scored a mean of 2.32 with standard deviation of 0.593.Based on the result, the respondents are almost disagree on effort to use of mobile banking services. This means the average respondents are not agree about the Effort of the customer to use mobile banking to fulfil some interest of customers i.e. easy for learning to the respondents and easy to be skilful to use mobile banking.

Table 4.4: Descriptive	statistics of E	<b>Effort expectancy</b>
------------------------	-----------------	--------------------------

	Variables of Effort expectancy	Mean	Std. Deviation
1	Learning how to use CBE's mobile banking is easy		
	for me.	2.28	.449
2	I found CBE's mobile banking easy to use.	2.22	.418
3	It is easy for me to become skillful at using mobile		
	banking.	2.32	.593
	Average mean	2.273	

#### Source: Field survey 2017

4.2.2.4 Social Influence of respondents towards behavioral intentions

As seen in the below table 4.5: Social Influence of respondents towards behavioural intentions the cumulative average mean is 1.796. Accordingly, People who influence the respondent's behaviour think he/she should use mobile banking services has scored a mean of 1.76 with standard deviation of 0.468, People who are important to respondent think that he/she should use mobile banking services has scored a mean of 1.85 with standard deviation of 0.467, Important people in respondent's community have been helpful in the user's use of mobile banking services has scored a mean of 1.78 with standard deviation of 0.412.Based on the result, the respondents are almost disagree on Social Influence to use of mobile banking services. This means the respondents does not influence by one the society around them for to use mobile banking to fulfil some interest of customers i.e. the people who influences the respondent's behaviour think that they should use mobile banking services.

	Variables of Social Influence	Mean	Std.
			Deviation
1	People who influence my behavior think I should use mobile banking services	1.76	0.468
2	People who are important to me think that I should use mobile banking services.	1.85	0.467
3	Important people in my community have been helpful in the use of mobile banking services.	1.78	0.412
	Average mean	1.796	

#### Table 4.5: Descriptive statistics of Social Influence

Source: Field survey 2017

## 4.2.2.5 Facilitating Conditions of respondents towards behavioral intentions

As seen in the below table 4.6: Facilitating Conditions of respondents towards behavioural intentions the cumulative average mean is 1.895. Accordingly respondents have the resources necessary to use mobile banking services has scored a mean of 2.18 with standard deviation of 0.664, the respondents have knowledge necessary to use mobile banking services has scored a mean of 2.06 with standard deviation of 0.576, there is sufficient Internet service to use mobile banking services to respondents has scored a mean of 1.40 with standard deviation of 0.491, the respondents can get help from the bank when the respondents face difficulties using mobile banking services has scored a mean of 1.94 with standard deviation of 0.422. Based on the result, the respondents are almost disagree on Facilitating Conditions to use of mobile banking services. This means the respondents does not have facility to use mobile banking to fulfil some interest of customer's i.e. sufficient internet services and getting help from the bank when they face difficulties using mobile banking services.

	Variables of Facilitating Conditions	Mean	Std.
			Deviation
1	I have the resources necessary to use mobile banking services.	2.18	0.664
2	I have knowledge necessary to use mobile banking services.	2.06	0.576
3	There is sufficient Internet service to use mobile banking services.	1.40	0.491
4	I can get help from the bank when I face difficulties using mobile banking services.	1.94	0.422
	Average mean	1.895	

Table 4.6: Descriptive stat	istics of Facilitating Conditions
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Source: Field survey 2017

### 4.2.2.6 Users' behavioral intentions to use Mobile banking services.

As seen in the below table 4.7: Users' behavioural intentions to use Mobile banking services the cumulative average mean is 1.906.Accordingly respondents intend to use mobile baking service in the future has scored a mean of 2.00 with standard deviation of 0.554, respondents predict they will use mobile banking services for various types of banking transaction has scored a mean of 1.92 with standard deviation of 0.545, respondents believe it is worthwhile for them to adopt mobile banking services has scored a mean of 1.80 with standard deviation of 0.673. Based on the result, the respondents are almost disagree on Behavioural intentions to use of mobile banking services to fulfil some interest of customer's i.e. the respondents intend to use mobile banking services in the future and they believe it was worthwhile for the respondents to adopt mobile banking services in the services.

	Variables of Behavioral intentions	Mean	Std.
			Deviation
1	I intend to use mobile baking service in the future.	2.00	0.554
2	I predict I will use mobile banking services for various types of banking transaction.	1.92	0.545
3	I believe it is worthwhile for me to adopt mobile banking services.	1.80	0.673
	Average mean	1.906	

**Table 4.7: Descriptive statistics of Behavioral intentions** 

Source: Field survey 2017

### 4.2.3 Correlation Analysis

Correlation analysis is a method of statistical evaluation used to study the strength of a relationship between dependent and independent variables which are, Performance expectancy, Effort expectancy, Social Influence and Facilitating Conditions i.e. independent variables and the dependent variable i.e. behavioural intention.

		Behavioural intention	Facilitating Conditions	Social Influence	Effort expectancy	Performance expectancy
Behavioural intention	Pearson Correlation	1				
	Sig.(2- tailed)					
Facilitating Conditions	Pearson Correlation	.053	1			
	Sig.(2- tailed)	.345				
Social Influence	Pearson Correlation	.064	.060	1		
	Sig.(2- tailed)	.253	.281			
Effort expectancy	Pearson Correlation	.088	080	029	1	
	Sig.(2- tailed)	.116	.153	.603		
Performance expectancy	Pearson Correlation	.011	.113	032	003	1
	Sig.(2- tailed)	.844	.043	.572	.959	

#### Table 4.8: correlation matrix for the variables

Source: Field survey 2017

The above table 4.8 shows, the relationship between the independent variables i.e. Performance expectancy, Effort expectancy, Social Influence and Facilitating Conditions and the dependent variable i.e. behavioural intention was investigated using Pearson correlation coefficient. The results of correlation analysis in the table 4.7, shows that all the independent variables were positively correlated with the dependent variable i.e. behavioural intention at 95% confidence level. The highest correlation is signified by Effort expectancy (r= 0.088), followed Social Influence (r= 0.064), Facilitating Conditions (r= 0.053) and Performance expectancy(r= 0.011). Generally, the correlation result of this study shows that, the variables i.e. Performance expectancy, Effort expectancy, Social Influence and Facilitating Conditions are independent variables and also variable i.e. behavioural intention to use mobile banking is dependent variable with positive relationship among independent and dependent variable.

## **CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS**

### 5.1. Conclusions

This paper developed a theoretical model of user adoption on mobile banking services based on The Unified Theory of Acceptance and Use of Technology (UTAUT), and attempted to explore the influencing factors which play a role in user's adoption of mobile banking. By collecting questionnaire survey data, the study processed statistical analysis and further made a discussion on the results of data analysis. This study was concerned with an investigation of factors that could affect mobile banking adoption on commercial bank of Ethiopia customers. The Descriptive statistics result of all independent variables has shown almost disagree to use mobile banking. This means customers are disagree about the performances of the mobile banking. This means customers are disagree about the performances of the mobile banking services of commercial bank of Ethiopia which tries to explained by the usefulness , saving time and easier the activity of the customer .The second one was Effort expectancy point of view, almost all customers are disagree about the Effort of the mobile banking. This means customers are disagree about the Effort of the mobile banking. This means customers are disagree about the Effort of the mobile banking. This means customers are disagree about the Effort of the mobile banking.

The third variable was Social Influencewhich almost all customers disagreed about the Social Influence to use the mobile banking. This means customers haven't Social Influence to use mobile banking services. The last but not the least the result shows that almost all customers disagreed about the Facilitating Conditions to use the mobile banking. This means customers haven't Facilitating Conditions to use mobile banking services. From the finding the main factors influencing customer to adopt mobile banking services in Commercial Bank of Ethiopia are Performance expectancy, Effort expectancy, Social Influence and Facilitating Conditions. The correlation result of this study shows that, the variables i.e. Performance expectancy, Effort expectancy, Social Influence and Facilitating Conditions are independent variables and also variable i.e. behavioural intention to use mobile banking is dependent variable with positive relationship among independent and dependent variable.

Based on the finding these independent factors i.e. Performance expectancy, Effort expectancy, Social Influence and Facilitating Conditions does affect dependent factor i.e. behavioural intention to use mobile banking which means the study reject the null hypothesis and on the revers accept the alternative hypothesis of the study.

- Generally, from the finding of the study, the main factors influencing customer to adopt mobile banking services in Commercial Bank of Ethiopia are Performance expectancy, Effort expectancy, Social Influence and Facilitating Conditions.
- And also they are positively related to the behavioural intention of the customer to use mobile banking services.

### 5.2. Limitation of the Study and Future Research

Despite the useful findings of the study, this study has several limitations that need to be acknowledged. Future studies should attempt to draw profiles based on characteristics other than these factors. And also the data for this study was only collected in commercial bank of Ethiopia in Addis Ababa thus the results may not be generalized for other areas which have different environment changes.

### 5.3. Recommendations

Based on the above findings, the following suggestions will help to improve customer's usage of mobile banking.

- The Commercial bank of Ethiopia should invest in campaigns to show the features, benefits and use of mobile banking services to the customers through promotional mix such as personal selling, advertisements, sales promotions, and public relations to enhances the interest of the customers to use mobile banking services in different areas and Events.
- With regard to Social influences, commercial bank of Ethiopia should create public relation to get Social participant leaders from the Society.
- To increase CBE's mobile banking users the bank should Facilitate Conditions that are related to resources, support and other facilities. In respective of resources, the bank should prepare and distribute resources that help the customer to adopt mobile

banking like manual, Brochures and Fliers. And also the support should be available and quick to the customers.

- When the bank is designing their mobile banking services they should consider customization that can fits with customers' different language preferences like creating menus in local languages.
- In addition, the mobile banking menu should be easier to use and understand hence software developer should create user friendly application.

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# Appendix I Questionnaire

Dear Respondents,

I am a graduate student in the department of Marketing Management, St. Mary University. This questionnaire is designed to carry out a research on the Factors affecting customers to adopt mobile banking in the case of commercial bank of Ethiopia specifically on Selected District (East, west, south & North) and its main purposes are to find the Factors affecting customers to adopt mobile Banking Services in the case of Commercial bank of Ethiopia and in partial fulfillment of the requirements for the Master of Arts in Marketing Management.

Here I kindly request you to attempt all the questions in the questionnaire to meet the aim of the study. Whatever information is provided will be treated with at most confidentiality and strictly will be used for academic purpose only. There is no need to write your name.

Please put right mark ( $\sqrt{}$ ) in front of your choice box that express yourself

Sincerely FrehiwotFekadu E-mail;-frehiwotfekadu@yahoo.com

# I. Background Information

Gender

Male	
Female	

Age category

18 to 30	
31 to 40	
41 to 50	
Over 51	

# Education Qualification

Certificates	
Diploma	
Degree	
Master's Degree	
Doctorate & above	

# Occupation

Employed	
Unemployed	
Self employed	
Other (specify)	

# II. Mobile phone experience

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
I have knowledge on using mobile phone.					

## **III.** Performance expectancy

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
I found mobile banking services useful in my life.					
Using mobile banking services enables me to accomplish banking task more quickly.					
Using mobile banking services increase my productivity in handling my banking tasks.					
Using mobile banking services makes my bank activities easier.					
Using mobile banking services increase my efficiency in conducting my banking tasks.					

# IV. Effort expectancy

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Learning how to use CBE's mobile banking is easy for me.					
I found CBE's mobile banking easy to use.					
It is easy for me to become skillful at using mobile banking.					

## V. Social Influence

	Strongly	Disagree	Neutral	Agree	Strongly
	Disagree				agree
People who influence my behavior think I					
should use mobile banking services					
People who are important to me think that I		•			
should use mobile banking services.					
Important people in my community have been					
helpful in the use of mobile banking services.					

# VI. Facilitating Conditions

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
I have the resources necessary to use mobile banking services.					
I have knowledge necessary to use mobile banking services.					
There is sufficient Internet service to use mobile banking services.					
I can get help from the bank when I face difficulties using mobile banking services.					

# VII. Behavioural intention

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
I intend to use mobile baking service in the future.					
I predict I will use mobile banking services for various types of banking transaction.		•			
I believe it is worthwhile for me to adopt mobile banking services.					

Thank you for your kind cooperation in filling the Questionnaire.

# Appendix II

# Correlations

		BEHAVIORAL	F ACILITATING	SOCIALIN	EFFORT	PERFORMANC
		INTENTION	CONDITIONS	FLUENCE	EXPECTANY	E EXPECTANCY
BEHAVIORAL	Pearson Correlation	1	.053	.064	.088	.011
INTENTION	Sig. (2-tailed)		.345	.253	.116	.844
	Ν	320	320	320	320	320
FACILITATING	Pearson Correlation	.053	1	.060	080	.113 <sup>*</sup>
CONDITIONS	Sig. (2-tailed)	.345		.281	.153	.043
	Ν	320	320	320	320	320
SOCIAL	Pearson Correlation	.064	.060	1	029	032
INFLUENCE	Sig. (2-tailed)	.253	.281		.603	.572
	Ν	320	320	320	320	320
EFFORT	Pearson Correlation	.088	080	029	1	003
EXPECTANY	Sig. (2-tailed)	.116	.153	.603		.959
	Ν	320	320	320	320	320
PERFORMANCE	Pearson Correlation	.011	.113 <sup>*</sup>	032	003	1
EXPECTANCY	Sig. (2-tailed)	.844	.043	.572	.959	
	N	320	320	320	320	320

\*. Correlation is significant at the 0.05 level (2-tailed).